

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/087460 A1(51) International Patent Classification⁷: D06F 33/02,
37/00, 39/08, A47L 15/42, C02F 1/42, G01V 8/16(74) Agents: ADAMS, Matthew, D et al.; A J Park, 6th Floor
Huddart Parker Building, PO Box 949, 6015 Wellington
(NZ).

(21) International Application Number: PCT/NZ03/00064

(22) International Filing Date: 10 April 2003 (10.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
518288 10 April 2002 (10.04.2002) NZ(71) Applicant (for all designated States except US): FISHER
& PAYKEL APPLIANCES LIMITED [NZ/NZ]; 78
Springs Road, East Tamaki, 1706 Auckland (NZ).(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

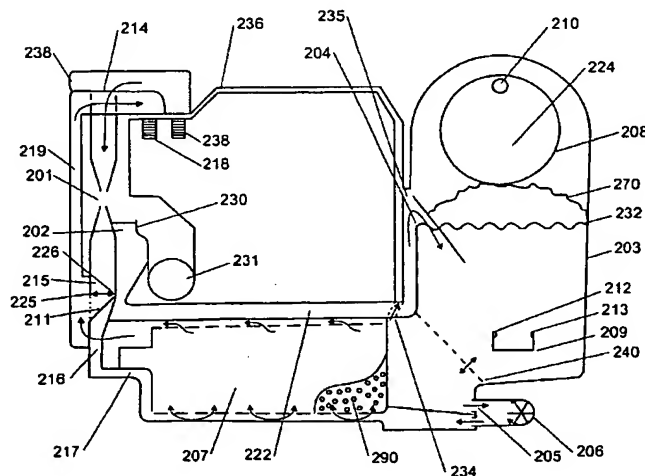
(75) Inventors/Applicants (for US only): MAUNSELL,
Stephen, Robert [NZ/NZ]; 320 Gladstone Road, Mos-
giel, 9001 DUNEDIN (NZ). BLAIR, Daniel, Warwick
[NZ/GB]; 10 St John's Court, Warwick, CV34 4NJ
UNITED KINGDOM (NZ).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: WASHING APPLIANCE WATER SOFTENER



(57) Abstract: A water softener particularly for use in a dishwasher. The water softener is located in the dishwasher water supply (238) between the primary supply valve and the wash chamber. The softener includes a resin container (207) with an ion exchange resin (290). Water supplied to the wash chamber optionally passes through the resin container (207). Regenerating brine is developed in a brine container (203). The brine container (203) is supplied manually with solid salt (270) and water diverted into the container from the main supply at an air break (201). In the regenerating cycle brine is delivered from the brine container (203) to the resin container (207) by a pump (206). The duty cycle of the pump (206) determines the degree of regeneration of the resin (290).

WO 03/087460 A1